

Application No.: 10/639,461
Amendment dated: October 26, 2004
Reply to Office Action of: July 26, 2004

AMENDMENTS TO THE DRAWINGS:

Please enter the appended Replacement Sheet.

REMARKS

Claims 1, 2 and 8 have been amended, and claim 6 canceled to improve the clarity of the claimed subject matter and to bring the claims into conformity with U.S. practice and format, and to place the application fully in condition for allowance. The original abstract has been amended to provide a more concise summary of the disclosure in accordance with U.S. practice format.

Claims 1-8 are objected to due to informalities. In substantial accord with the Examiner's suggestions, claim 1 has been amended to recite a substrate (1) comprising a circuit board (12) and a connecting head (11). Claim 1 has also been amended to incorporate elements of canceled claim 6. Claims 2 and 8 have been amended in accord with the Examiner's suggestions.

The abstract and specification have been amended to correct informalities.

The drawings are objected to because the original limitation "connector extending from the circuit board" is not shown, as well as the limitation "substrate". In this regard, Applicant is submitting herewith a replacement sheet containing corrected Figure 1. Reference characters 11 and 12 more clearly distinguish the claimed connector/connecting head (11) and the circuit board/circuit board part (12). With regard to the substrate, independent claim 1 has been amended to recite a substrate (1) comprising a circuit board part (12) and a connecting head (11) extended from the circuit board part (12) as illustrated in Figure 1. In view of the replacement sheet and the remarks above, withdrawal of the objections to the drawings is respectfully requested.

In view of the amendments and the remarks above, withdrawal of the objections to the claims is respectfully requested.

Claims 1-5 and 6-8 remain pending upon entry of the amendments to the claims above.

Claim Rejections under 35 U.S.C. § 102

Claim 1 is rejected under 35 USC 102 as being anticipated by U.S. 5,330,360 (Marsh). Independent claim 1 has been amended to more clearly claim the inventive subject matter. If the earlier rejection is to be maintained, Applicant most respectfully traverses such finding.

Applicant respectfully wishes to direct the Examiner's attention to MPEP § 2131 which states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed.Cir. 1990).

With regard to the reference to Marsh et al., the Examiner will note that the circuit element 30 is combined with the connector means 40 via the terminals 160, as illustrated in Figure 1 and 3a. Hence, the equated connector/connecting head and the circuit board/circuit board part of Marsh et al. are in at least two separate pieces. In contrast, as illustrated in the replacement sheet containing Figure 1, the claimed substrate (1) comprises a circuit board part (12) and a connecting head (11) extended from the circuit board part (12) and this one-piece layout is not taught in the reference to Marsh et al. in conjunction with other claimed elements. Hence, withdrawal of this rejection is respectfully requested.

Claim Rejections under 35 U.S.C. § 103

Claims 1-3, 5 and 8 are rejected under 35 USC 103 as being unpatentable over U.S. 6, 671,808 (Abbott et al.) in view of U.S. 6,618,243 (Tirosh) or in further view of U.S. 5,213,511 (Sobhani). Claim 4 is rejected under 35 USC 103 as being unpatentable over Abbott et al. in view of Tirosh and U.S. 5,775,485 (Dierking). Claim 6 is rejected under 35 USC 103 as being unpatentable over Abbott et al. in view of Tirosh and Sobhani. Claim 7 is rejected under 35 USC 103 as being unpatentable over Abbott et al. in view of Tirosh and U.S. 5,973,734 (Anderson). Applicant respectfully traverses this rejection.

Independent claim 1 has been amended to positively recite a substrate (1) comprising a circuit board part (12) and a connecting head (11) extended from the circuit board part (12), wherein the connecting head (11) is arranged with a plurality of contacts (111) for electrically connecting to an external electronic apparatus, wherein the contacts (111) are directly printed on the substrate (1). None of the cited references, alone or in combination thereof teaches, discloses or suggests the feature of extending the circuit board part (12) to form an extension such as the connecting head (11) on which the contacts (111) are printed.

With regard to the base reference to Abbott et al., the Examiner will note that the device of Abbott et al., teaches pins 302 for coupling with the connection surfaces on the circuit board 206. The clip portion 306 slides over the connection surfaces 210, where the pin jaw tabs 314 assist in making an electrical connection (column 8, lines 60-67, Figures 3A-3C and 5, column 10, lines 46-59). Such pins cannot be equated to the claimed contacts (111) of the claimed invention since the claimed contacts (111) are directly printed on the substrate (1), as illustrated in Figure 1.

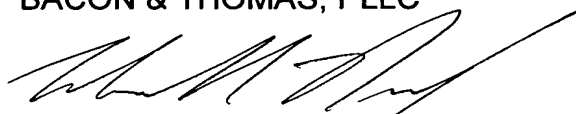
Further modification of the base reference to Abbott et al. according to the teachings of any one or combination of cited references will not teach, disclose or suggest this feature, in addition to other claimed elements of independent claim 1. In

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view of the amendments to the claims and the remarks above, withdrawal of this rejection is respectfully requested.

In summary, it is respectfully submitted that none of the prior art individually or collectively shows the invention as claimed. Accordingly, withdrawal of the rejection of the claims appears to be warranted and the same is respectfully requested. In the event there are any outstanding matters remaining in the present application which can be resolved by a telephone call or facsimile communication to Applicant's Attorney, the Examiner is invited to contact the undersigned by telephone or facsimile at the numbers provided below.

Respectfully submitted,
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Date: October 26, 2004

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